



Copper SIMpull Flexible Class C THHN/THWN-2[®]

600 Volts. Flexible Class C Copper Conductor. PVC Insulation/Nylon Sheath THHN/THWN. Heat, Moisture, Gasoline and Oil Resistant II. Silicone-Free.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Flexible Class C soft drawn bare copper per ASTM B8
2. **Insulation:** Heat and moisture resistant PVC
3. **Sheath:** Nylon

APPLICATIONS AND FEATURES:

APPLICATION

Southwire[®] Flexible THHN copper conductors are primarily used in conduit for power circuits in commercial or industrial applications as specified in the National Electrical Code[®] and other applicable codes and standards. Voltage for all applications is 600 volts. These conductors have multiple ratings depending upon the product application. Allowable temperatures are as follows:

- THHN or T90 Nylon- Dry locations not to exceed 90°C
- THWN- Wet locations not to exceed 75°C or dry locations not to exceed 90°C or locations not to exceed 75°C when exposed to oil
- TWN75- Wet locations not to exceed 75°C

FEATURES

- Sunlight resistant
- Gasoline and Oil Resistant II
- FT4 - All Sizes
- CT Rated
- VW-1
- FT1
- RoHS Compliant

SPECIFICATIONS:

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- CSA C22.2 No. 75 Thermoplastic Insulated Wires and Cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- Federal Specification A-A-59544
- NMJ-J-010-ANCE Thermoplastic insulated wires and cables





- NOM-063-SCFI Electrical Products – Conductors – Safety Requirements

SAMPLE PRINT LEGEND:

SOUTHWIRE SIMpull(TM) E23919 (UL) (XX AWG OR KCMIL) X,XXmm² CU TYPE THWN-2 OR THHN 600 VOLTS GR II PR II VW-1 OR AWM --- c(UL) T90 NYLON OR TWN75 600 VOLTS FT1 NOM-ANCE 90(D)C --- RoHS PAT www.patentSW.com

Table 1 – Weights and Measurements

Cond. Size AWG/Kcmil	Strand Count No. of Strands	Diameter Over Conductor inch	Insul. Thickness mil	Jacket Thickness mil	Approx. OD inch	Approx. Weight lb/1000ft
250	61	0.575	62	9	0.715	845
350	61	0.681	62	9	0.821	1167
500	61	0.814	62	9	0.954	1645
750	91	0.998	70	9	1.158	2457
1000	91	1.152	70	9	1.312	3249

All dimensions are nominal and subject to normal manufacturing tolerances
 ◊ Cable marked with this symbol is a standard stock item

Table 2 – Electrical and Engineering Data

Cond. Size AWG/ Kcmil	Min Bending Radius inch	Max Pull Tension lb	DC Resistance @ 25°C Ω/1000ft	AC Resistance @ 75°C Ω/1000ft	Inductive Reactance @ 60Hz Ω/1000ft	Allowable Ampacity At 60°C Amp	Allowable Ampacity At 75°C Amp	Allowable Ampacity At 90°C Amp
250	2.9	2000	0.043	0.053	0.041	215	255	290
350	3.3	2800	0.031	0.039	0.040	260	310	350
500	3.8	4000	0.022	0.029	0.039	320	380	430
750	5.8	6000	0.014	0.022	0.038	400	475	535
1000	6.6	8000	0.011	0.018	0.037	455	545	615

* Ampacities based upon 2023 NEC Table 310.16. Also, see NEC sections 310.15 and 110.14(C) for additional requirements.
 * Inductive Reactance is based on non-ferrous conduit with one diameter spacing center-to-center.

